substrates;

thermally tempering the first and second glass substrates with the first portion of edge seal material thereon;

following said tempering, depositing a second portion of edge seal material on at least the first substrate over at least part of the first portion of edge seal material already on the first substrate, wherein at least one of the edge seal material(s) is doped with a material so that it is more absorbing of microwave energy from 2-8 mm;

forming a hermetic peripheral or edge seal at least partially between the

first and second substrates by at least using microwave energy comprising a wavelength(s) of from 2-8 mm directed toward at least the second portion of edge seal material so that the second portion of edge seal material bonds to both: a) the first portion of edge seal material on the first substrate, and b) the first portion of edge seal material on the second substrate; and

evacuating a space between the first and second substrates so as to form a low pressure area having a pressure less than atmospheric pressure between the first and second substrates.

12. (Amended) A method of making a seal of a thermally insulating glass panel, the method comprising:

thermally tempering a glass substrate with edge seal material thereon;

providing additional edge seal material on said substrate following said

tempering, so that the additional edge seal material contacts the edge seal material provided or deposited on the glass substrate prior to said tempering;

providing a plurality of spacers between the tempered glass substrate and another glass substrate;

forming a seal located at least partially between the substrates by heating at least the additional edge seal material using at least microwave energy comprising a wavelength(s) of from 1-10 mm so that the additional edge seal material fuses with or bonds to the edge seal material deposited on the glass substrate prior to said tempering; and

wherein at least some of said edge seal material is doped with a dopant so that the edge seal material is more absorbing of microwave energy from 1-10 mm so that more microwave energy is absorbed by the edge seal material and less by the glass substrate so that the glass substrate can retain more temper strength.

19. (Amended) A method of making a seal for a thermally insulated panel, the method comprising:

heating a first glass substrate with base seal material thereon to a temperature of from about 600-700 degrees C;

following said heating, applying additional seal material and using microwave energy to re-heat the base seal material and heat the additional seal material in order to form a seal at least partially located between the first substrate and a second substrate; and

wherein at least some of said seal material is doped so that the seal material is more absorbing of microwave energy so that more microwave energy is absorbed by the seal material and less by the glass substrate so that the glass substrate can retain more temper strength.

21. (Amended) A method of making a thermally insulating unit, the method comprising:

providing first and second substrates with a plurality of spacers therebetween;

forming a hermetic peripheral or edge seal at least partially between the first and second substrates using at least microwave energy; and

wherein said seal is doped with silicon carbide so that the seal is more absorbing of microwave energy.

26. (Amended) method of making a seal of a thermally insulating glass panel, the method comprising:

heating a glass substrate with edge seal material thereon;

providing additional edge seal material on said substrate following said

heating, so that the additional edge seal material contacts the edge seal material provided or deposited on the glass substrate prior to said heating;

providing a plurality of spacers between the glass substrate and

another glass substrate; and

forming a seal located at least partially between the substrates by performing another heating in order to heat at least the additional edge seal material so that the additional edge seal material fuses with or bonds to the edge seal material deposited on the glass substrate prior to said previous heating, and wherein at least part of the seal material is doped with silicon carbide so that the seal is more absorbing of microwave energy.

27. (Amended) A method of making an insulating glass (IG) window unit, the method comprising:

providing first and second glass substrates, at least one of said glass substrates being tempered;

depositing edge seal material on at least one of the glass substrates;

forming at least part of an edge seal at least partially between the first and second glass substrates by at least using microwave energy comprising wavelength(s) from 2-8 mm directed toward at least part of the edge seal material, wherein the seal material is doped with a material so that the seal material is more absorbing of microwave energy from 2-8 mm; and

wherein at least one spacer is provided between the glass substrates for spacing the substrates from one another.

28. (Amended) The method of claim 27, wherein said forming is carried out in a manner so that after the edge seal has been formed at least certain portions of the

tempered glass substrate(s) retains at least about 50% of its original temper strength after the edge seal has been formed.

29. (Amended) The method of claim 27, wherein said forming is carried out in a manner so that after the edge seal has been formed at least certain portions of the tempered glass substrate(s) retains at least about 70% of its original temper strength after the edge seal has been formed.

30. (Amended) The method of claim 27, wherein said forming is carried out in a manner so that after the edge seal has been formed at least certain portions of the tempered glass substrate(s) retains at least about 80% of its original temper strength after the edge seal has been formed.

33. (Amended) A method of making an insulating glass (IG) window unit, the method comprising:

providing first and second glass substrates;

depositing edge seal material on at one of the glass substrates;

forming at least part of an edge seal at least partially between the first and second glass substrates by at least using microwave energy directed toward at least part of the edge seal material, and

wherein the seal material is doped with at least a carbide material so that the seal material is more absorbing of microwave energy from at least 2-8 mm.